UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,739	11/20/2001	Brendan Hinchey	DEKM:177US	9652

7590 06/20/2005

FULBRIGHT & JAWORSKI L.L.P.
A REGISTERED LIMITED LIABILITY PARTNERSHIP
SUITE 2400
600 CONGRESS AVENUE
AUSTIN, TX 78701

EXAMINER	
WORLEY, CATHY KINGDON	
ART UNIT	**PAPER NUMBER**
1638	

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/989,739	HINCHEY ET AL.	
	Examiner	Art Unit	
	Cathy K. Worley	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-89 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-89* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *Nov. 20, 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2142002
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Restriction/Election

In response to the communication received on Nov. 5, 2004, from Robert Hanson, the examiner acknowledges the receipt of the amended claims. The applicant has elected, with traverse, group I, consisting of claims 1 and 12-16. Upon further consideration, the examiner will rejoin all claims, 1-89, because although there is a burden, the examiner concedes it is not an undue burden to examine all claims together. Therefore the restriction is removed and all claims, 1-89, are considered herein. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Specification

The use of multiple trademarks in the specification has been noted in this application, especially in the examples. Trademarks should be in all capital letters wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks. See MPEP § 608.01(v)

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any typographical errors of which applicant may become aware in the specification. New matter must be avoided.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-89 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The claims are broadly drawn towards any fragment of DNA within SEQ ID NO:18 having promoter activity or any DNA capable of hybridizing to SEQ ID NO:18 under specified conditions having promoter activity; and to methods and plants comprising said fragment of DNA.

The specification indicates that a 2.55 kb fragment upstream of the *Zea mays* glutamine synthase $GS_{1\text{-}2}$ coding sequence was isolated by PCR and subsequent restriction digest (page 108, line 12 through 110, line 10; and page 112 lines 18-23). The nucleotide sequence of the $GS_{1\text{-}2}$ promoter is set forth in SEQ ID NO:18. An expression construct comprising SEQ ID NO:18 operably linked to the GUS coding sequence and a transcription terminator was prepared and introduced into maize cells. Transgenic plants were regenerated from the transformed cells, and GUS expression was assayed in various tissues. SEQ ID NO:18 directed GUS transcription in the developing cob and at the point of silk attachment to the kernel in pre-pollination maize plants, as determined by histochemical staining analysis (pages 117-119).

However, the specification does not describe any fragments of SEQ ID NO:18 that have functional promoter activity, nor does the specification disclose any isolated polynucleotides capable of hybridizing to SEQ ID NO:18 under the specified conditions. Further, the $GS_{1\text{-}2}$ promoter is tissue-specific. The specification does not describe any fragments of SEQ ID NO:18 that retain tissue specificity. While the specification describes the isolation of SEQ ID NO:18, the method does not describe the structure of operable fragments of SEQ ID NO:18. The specification does not correlate any other structures with plant promoter activity. See Fiers vs. Sugarno, 25 USPQ 2d (CAFC 1993) at 1606, which states that "[a]n adequate written description of a DNA requires more than a mere statement that it is part of the

invention and reference to a potential method for isolating it; what is required is a description of the DNA itself". Given the breadth of the claims encompassing any recombinant promoter comprising at least a minimal functional plant promoter region derived from or hybridizing to SEQ ID NO:18, and the lack of written description as discussed above, the specification fails to provide an adequate written description of the multitude of promoters encompassed by the claims.

Claims 1-89 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for SEQ ID NO:18, does not reasonably provide enablement for any other recombinant promoter comprising at least a minimal functional plant promoter region derived from or hybridizing to SEQ ID NO:18, or methods for expressing genes of interest in plant cells or for constructing expression constructs comprising any other recombinant promoter comprising at least a minimal functional plant promoter region derived from or hybridizing to SEQ ID NO:18. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

The specification teaches that a 2.55 kb fragment upstream of the *Zea mays* glutamine synthase $GS_{1\text{-}2}$ coding sequence was isolated by PCR and subsequent restriction digest (page 108, line 12 through 110, line 10; and page 112 lines 18-23). The nucleotide sequence of the $GS_{1\text{-}2}$ promoter is set forth in SEQ ID NO:18. An

expression construct comprising SEQ ID NO:18 operably linked to the GUS coding sequence and a transcription terminator was prepared and introduced into maize cells. Transgenic plants were regenerated from the transformed cells, and GUS expression was assayed in various tissues. SEQ ID NO:18 directed GUS transcription in the developing cob and at the point of silk attachment to the kernel in pre-pollination maize plants, as determined by histochemical staining analysis (pages 117-119).

However, the specification does not teach promoters of the glutamine synthase gene other than that set forth in SEQ ID NO:18. See Amgen Inc. v. Chugai Pharmaceutical Co. Ltd., 18 USPQ2d 1016 at 1021 and 1027, (Fed. Cir. 1991) at page 1021, where it is taught that a gene is not reduced to practice until the inventor can define it by "its physical or chemical properties" (e.g. a DNA sequence). The sequence of isolated polynucleotides capable of hybridizing to SEQ ID NO:18 and comprising promoter activity is not disclosed. The specification also does not teach minimal functional promoter regions derived from SEQ ID NO:18. The specification does not provide any guidance as to the portions of SEQ ID NO:18 that retain activity. Even minor alterations can alter promoter activity. Kim et al. (Plant Mol. Biol., 1994, Vol. 24, pages 105-117) teach that the deletions of just a few nucleotides can abolish promoter activity (page 109). In the absence of this guidance, one skilled in the art is left to randomly produce an endless number of fragments from SEQ ID NO:18, which is undue experimentation. Given the

breadth of the claims encompassing any recombinant promoter comprising at least a minimal functional plant promoter region derived from or hybridizing to SEQ ID NO:18, unpredictability of the art and lack of guidance of the specification as discussed above, undue experimentation would be required by one skilled in the art to make and use the claimed invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-14 and 17-89 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites the limitation "the enhancer comprises an intron" and is dependent upon claim 1 which does not mention an enhancer. There is insufficient antecedent basis for this limitation in the claim. Claim 14 is dependent upon claim 13, and therefore is rejected for the same reason.

Claims 17, 38, 57, and 74 recite the limitation "the maize" and are dependent upon claim 1 which does not mention maize. There is insufficient antecedent basis for this limitation in these claims. Claims 18-37, 39-56, 58-73, and 75-89 are dependent upon claims 17, 38, 57, and 74, and therefore are rejected for the same reason.

Claims 18 and 20 recite the limitation "the selected heterologous coding region" and are dependent upon claim 17 which does not mention a heterologous coding region. There is insufficient antecedent basis for this limitation in these claims. Claims 19 and 21 are dependent upon claims 18 and 20, and therefore are rejected for the same reason.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 11-13, 15, 17-18, 20, 22, 24-25, 28-30, 34-37, 57-66, 69-70, and 72 are rejected under 35 U.S.C. 102(e) as being anticipated by Muhitch (U.S. Patent Pub. No. US20040148651).

Claims 1 and 11 are drawn to an isolated nucleic acid sequence comprising a cytoplasmic glutamine synthetase $GS_{1\text{-}2}$ promoter, wherein said promoter comprises the nucleic acid sequence of SEQ ID NO:18, in the instant case, or a fragment

thereof or a sequence that hybridizes to SEQ ID NO:18 under wash conditions of 2XSCP, 1% SDS at 65°C for 30 minutes.

Muhitch teaches an isolated DNA molecule comprising a polynucleotide of SEQ ID NO:1, which is the maize $GS_{1\text{-}2}$ promoter, and isolated DNA molecules comprising fragments thereof (see claim 1 and FIG 4, in particular). These polynucleotides taught by Muhitch comprise fragments of SEQ ID NO:18 in the instant case. These polynucleotides taught by Muhitch would inherently have the property of hybridizing to SEQ ID NO:18 under wash conditions recited in instant claim 1.

Claims 12 and 13 are drawn to the isolated nucleic acid comprising the promoter described above, further comprising an enhancer, including an enhancer comprising an intron.

Muhitch teaches an isolated DNA comprising a transcription regulatory region including cis-acting elements, such as enhancers and introns (see paragraphs 25 and 29, in particular). Because the polynucleotides taught by Muhitch comprise a $GS_{1\text{-}2}$ promoter and an enhancer, including an intron, claims 12-13 in the instant case have been anticipated by Muhitch.

Claim 15 is drawn to the isolated nucleic acid comprising the promoter described above, further comprising a 3' UTR.

Muhitch teaches an isolated DNA comprising the transcription regulatory region of $GS_{1\text{-}2}$ and further comprising a 3' untranslated sequence such as a

polyadenylation signal (see paragraph 25, in particular). Because the regulatory region further comprising a 3' UTR was taught by Muhitch, claim 15 in the instant case has been anticipated by Muhitch.

Claims 17-18, 20, 22, 24, and 28-30 are drawn to a transgenic plant stably transformed with the promoter described above, including a plant wherein the selected heterologous coding region encodes a protein imparting insect resistance, bacterial disease resistance, fungal disease resistance, viral disease resistance, nematode disease resistance, herbicide resistance, nutrient transporter functions, enhanced grain composition or quality, enhanced nutrient utilization, enhanced environment or stress resistance, reduced mycotoxin contamination, female sterility, a selectable marker phenotype, a screenable marker phenotype, a negative selectable marker phenotype, or altered plant agronomic characteristics; and including a plant wherein said coding region is operably linked to a 3' UTR; and including a plant wherein the selected DNA comprises an enhancer; and including a plant wherein the selected DNA comprises plasmid DNA; and including a plant which is a monocotyledonous plant.

Muhitch teaches stable corn transformants prepared by bombarding embryos with a plasmid comprising a $GS_{1\text{-}2}$ promoter and further comprising nucleotides encoding the β-glucuronidase (GUS) reporter protein; further comprising the 3' NOS terminator; and further comprising an enhancer in the form of the $GS_{1\text{-}2}$ intron 1 (see paragraphs 81 and 74, in particular). Because these plants are

monocotyledonous maize plants and comprise a plasmid containing a $GS_{1\text{-}2}$ promoter, a 3' UTR, an enhancer, and the GUS reporter can be used to generate a screenable marker phenotype (see paragraph 81, in particular), claims 17-18, 20, 22, 24, and 28-30 are anticipated by Muhitch.

Claim 25 is drawn to a transgenic plant stably transformed with a polynucleotide comprising a $GS_{1\text{-}2}$ promoter and further comprising a sequence encoding a signal peptide.

Muhitch teaches a $GS_{1\text{-}2}$ promoter that additionally includes targeting sequences that target the gene of interest to the appropriate subcellular compartment (see paragraph 25, in particular). Because Muhitch teaches a polynucleotide comprising a $GS_{1\text{-}2}$ promoter and further comprising a targeting sequence, claim 25 is anticipated by Muhitch.

Claims 34-37 are drawn to a transgenic plant stably transformed with a selected DNA comprising a $GS_{1\text{-}2}$ promoter, and further defined as a fertile R_o transgenic plant, and a seed of said R_o transgenic plant, and progeny of said plant, and a seed of said progeny comprising the selected DNA.

Muhitch teaches transgenic plants which produced viable seed (see paragraph 82, in particular). Muhitch also teaches the progeny and seeds of the progeny (see paragraph 84, in particular). Because these teachings encompass transgenic plants stably transformed with a $GS_{1\text{-}2}$ promoter, and their seeds, their progeny, and their progeny's seeds, claims 34-37 are anticipated by Muhitch.

Claims 57-66, 69-70, and 72 are drawn to a method of preparing a transgenic plant comprising obtaining a construct comprising the $GS_{1\text{-}2}$ promoter, transforming a recipient plant cell with the construct, and regenerating a plant from the recipient cell, including a method wherein the promoter is operably linked to a selected coding region, and including a method wherein the transgenic plant is fertile, and including a method further comprising obtaining seed or progeny from the plant. Also included is a transformation step selected from microprojectile bombardment, PEG mediated transformation of protoplasts, electroporation, silicon carbide fiber mediated transformation, or *Agrobacterium*-mediated transformation. Also included is a method utilizing a monocotyledonous recipient plant cell, including wheat, maize, rye, rice, turfgrass, oat, barley, sorghum, millet, or sugarcane. Also included is a construct wherein the selected coding region encodes a protein imparting insect resistance, bacterial disease resistance, fungal disease resistance, viral disease resistance, nematode disease resistance, herbicide resistance, nutrient transporter functions, enhanced grain composition or quality, enhanced nutrient utilization, enhanced environment or stress resistance, reduced mycotoxin contamination, female sterility, a selectable marker phenotype, a screenable marker phenotype, a negative selectable marker phenotype, or altered plant agronomic characteristics. Also included is a construct further comprising an enhancer or further comprising a 3' UTR operably linked to the coding region.

Muhitch teaches a method of preparing a transgenic plant comprising bombarding corn embryos with a plasmid comprising a $GS_{1\text{-}2}$ promoter, an enhancer in the form of intron 1 from the $GS_{1\text{-}2}$ gene, nucleotides encoding GUS, the 3' UTR from NOS; and regenerating a fertile transgenic plant from the recipient cells (see paragraphs 81 and 82, in particular). The GUS reporter was further utilized as a screenable marker (see paragraph 81, in particular). Because of these teachings, claims 57-66, 69-70, and 72 are anticipated by Muhitch.

Claims 1-2 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by La Rosa et al. (U.S. Patent Pub. No. US20040214272A1).

Claims 1-2 and 11 are drawn to an isolated nucleic acid sequence comprising a cytoplasmic glutamine synthetase $GS_{1\text{-}2}$ promoter comprising the nucleic acid sequence of SEQ ID NO:18 or a fragment thereof having promoter activity, also including a nucleic acid sequence that hybridizes to the nucleic acid sequence of SEQ ID NO:18 under wash conditions of 2X SCP, 1% SDS at 65°C for 30 minutes, also including a promoter comprising from 250-2547 contiguous nucleotides of the nucleic acid sequence of SEQ ID NO:18.

La Rosa et al. teach a polynucleotide (SEQ ID NO:86750) comprising a 399 bp fragment of SEQ ID NO:18 from the instant case. The property of promoter activity is inherent to the nucleotide sequence taught by the reference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 11-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muhitch (U.S. Patent Pub. No. US20040148651) in combination with Applicants' admitted state of the prior art, Register et al. (1994 Structure and Function of Selectable and Non-Selectable Transgenes in Maize After Introduction by Particle Bombardment; Plant Molecular Biology, Volume 25, pp. 951-961), Wong et al. (1992, *Arabidopsis thaliana* Small Subunit Leader and Transit Peptide Enhance the Expression of *Bacillus thuringiensis* Proteins in Transgenic Plants; Plant Molecular Biology, Volume 20, pp. 81-93), McCabe et al. (1988, Stable Transformation of Soybean (Glycine Max) by Particle Acceleration; Biotechnology, Volume 6, pp. 923-926), and Poehlman and Sleper (1995, Breeding Field Crops, 4th Edition; Iowa State University Press; Ames, Iowa, pages 146-151 and 172-174).

Claims 1 and 11-89 are broadly drawn to an isolated nucleic acid sequence comprising a $GS_{1\text{-}2}$ promoter or fragment thereof or further comprising an intron; including a nucleic acid further comprising either the rice actin 1 intron or the rice

actin 2 intron; including a nucleic acid further comprising a 3' UTR, including the *PIN II* 3' UTR; including a nucleic acid further comprising a selected DNA, including a selectable marker; including a nucleic acid further comprising a signal peptide, including a chloroplast transit peptide; to a transgenic plant comprising said sequence, including a dicotyledonous plant such as soybean; and to a method of preparing said transgenic plant, including using breeding techniques such as crossing to generate progeny plants comprising the transgene.

Muhitch teaches an isolated nucleic acid sequence comprising the $GS_{1\text{-}2}$ promoter and further comprising an intron, also further comprising a 3' UTR, and further comprising a targeting sequence; a transgenic plant comprising said nucleic acid; and a method of preparing said transgenic plant, as discussed above.

Muhitch does not teach rice actin introns, the *PIN II* 3' UTR, a selectable marker operably linked to the $GS_{1\text{-}2}$ promoter, or a chloroplast transit peptide.

Register et al. teach two selectable markers, the *bar* gene and the *nptII* gene (see abstract on page 951, in particular).

Applicants' admitted state of the prior art teaches that rice actin 1 and actin 2 introns and the *PIN II* 3' UTR are taught in the prior art (see page 108, line 6, in particular).

Wong et al. teach the transit peptide of the small subunit of ribulose-1,5-bisphosphate carboxylase operably linked to the coding sequence of an insect resistance gene, and that the encoded toxin accumulated to higher levels in the

chloroplast, than in the cytoplasm in the absence of the transit peptide. (See page 90, Table 2, in particular).

McCabe et al. teach a transgenic soybean plant which is a dicotyledonous transgenic plant (See page 925, in particular).

Poehlman and Sleper teach breeding techniques, including transforming a plant with a foreign gene and transmission of the foreign gene through sexual process to plants in succeeding generations, (see pages 146-151 and 172-174, in particular).

At the time of the invention it would have been obvious and within the scope of one of ordinary skill in the art to modify the promoter construct of Muhitch by operably linking any desired selectable marker to the promoter, including the *bar* or *nptII* selectable markers of Register et al. One would have been motivated to use these marker genes for selecting transformants, as demonstrated by Register et al. It also would have been obvious to modify the promoter construct of Muhitch by including other regulatory elements, such as the introns and 3' UTRs, including those taught in Applicant's admitted state of the prior art. One would have been motivated to do so, as Muhitch teaches that introns enhance transcriptional activity and that 3' UTRs can be added. It also would have been obvious to include a nucleotide sequence encoding a chloroplast transit peptide, for example that taught by Wong et al., in the construct of Muhitch. One would have been motivated to do so as the expressed protein would accumulate to levels 9 times higher compared

with the same heterologous protein without the transit peptide, as demonstraed by Wong et al. (see page 90, Table 2, in particular). It also would have been obvious to introduce the promoter construct in any plant of interest, including dicot plants, using any appropriate transformation method, for example the method of transforming soybean taught by McCabe et al. The choice of plant to transform would have depended on one's desired end. One of ordinary skill would have been motivated to use the promoter construct to express a gene of interest in soybean, for example, as it is a plant of economic importance. It also would have been obvious to cross the transgenic plants comprising the promoter construct with other plants, and produce progeny seed and plants of subsequent generations, as taught by Poehlman and Sleper. One of ordinary skill would have been motivated to do so as cross pollination is obviously simpler to introduce transgenic material into other plants, versus the construction of new transformants.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cathy K. Worley whose telephone number is (571) 272-8784. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy J. Nelson can be reached on (571) 272-0804. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CKW
June 9, 2005

ASHWIN D. MEHTA, PH.D.
PRIMARY EXAMINER